

What is claimed is:

- 5 1. An array storage system comprising a shelf defining a tubular closed passage with a frontend opening and a backend opening, a frontend partition adapted for supporting a first component inserted in the frontend, a removable backend partition adapted for supporting a second component inserted in the backend, and a removable backplane support adapted for operably supporting a backplane in electrical connection with the first and second components.
- 10 2. The array storage system of claim 1 wherein the removable backend partition comprises the backplane support.
- 15 3. The array storage system of claim 1 wherein the first component is a multiple disc array.
- 20 4. The array storage system of claim 3 wherein the frontend partition is adapted for supporting a third component different than the multiple disc array.
- 25 5. The array storage system of claim 4 wherein the third component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.
- 30 6. The array storage system of claim 1 wherein the second component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.
7. The array storage system of claim 6 wherein the backend partition is adapted for supporting a fourth component different than the second component.
8. The array storage system of claim 7 wherein the fourth component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.

9. A shelf defining a tubular closed passage with a frontend opening and a backend opening, a frontend partition adapted for supporting a first component inserted in the frontend, a removable backend partition adapted for supporting a second component inserted in the backend, and a removable backplane support adapted for operably supporting a backplane in electrical connection with the first and second components.

5 10. The shelf of claim 9 wherein the removable backend partition comprises the backplane support.

11. The shelf of claim 9 wherein the first component comprises a multiple disc array.

15 12. The shelf of claim 11 wherein the frontend partition is adapted for supporting a third component different than the multiple disc array.

20 13. The shelf of claim 12 wherein the third component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.

14. The shelf of claim 9 wherein the second component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.

25 15. The shelf of claim 14 wherein the backend partition is adapted for supporting a fourth component different than the second component.

16. The array storage system of claim 15 wherein the fourth component comprises a component selected from a group consisting of a data storage device controller, a power supply unit, an interface unit, and a battery unit.

17. A method for electrically connecting components comprising:
providing a shelf defining a tubular closed passage with a frontend opening
and a backend opening, and a frontend partition adapted for supporting
a first component inserted in the frontend opening,

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attaching a backplane to a backplane support;
removably inserting the backplane support in the backend opening;
inserting a removable backend partition adapted for supporting a second
component inserted in the backend;
inserting the first component in the frontend opening to electrically engage
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the backplane; and
inserting the second component in the backend opening to electrically
engage the backplane.

18. The method of claim 17 further comprising:

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removing the second component from the backend opening;
removing the backend partition from the backend opening;
removing the backplane;
removably inserting a replacement backplane through the backend opening;
replacing the backend partition through the backend opening; and
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replacing the second component in the backend opening.

19. The method of claim 17 wherein the removably inserting the backplane
support step and the inserting a removable backend partition steps comprise
providing a backend partition comprising the backplane support.

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20. The method of claim 18 wherein the removably inserting a replacement
backplane comprises inserting and attaching a characteristically different
backplane.